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U.S. SOCIETY AND THE EVOLVING NEEDS OF THE BABY BOOMER GENERATION
AS IT RELATES TO ALZHEIMER'S DISEASE

By

Rebecca A. Driver

B.S., Southern Illinois University Carbondale, 2012

A Research Paper
Submitted in Partial Fulfillment of the Requirements for the
Master of Science Degree

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in the Graduate School
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A Research Paper Submitted in Partial

Fulfillment of the Requirements

for the Degree of

Science

in the field of Rehabilitation Counseling

Approved by:

Dr. Thomas Upton, Advisor

Graduate School
Southern Illinois University Carbondale
4/10/14

ABSTRACT

Rebecca A. Driver, for the Master's in Science degree in Rehabilitation Counseling at Southern Illinois University Carbondale.

TITLE: U.S. SOCIETY AND THE EVOLVING NEEDS OF THE BABY BOOMER GENERATION AS IT RELATES TO ALZHEIMER'S DISEASE

MAJOR PROFESSOR: Dr. Thomas Upton

The Baby Boomer generation, those born between the years 1946-1964, are beginning to reach the age of when symptoms of initial onset of Alzheimer's Disease become prevalent. This causes a concern for society in the United States due to the high number of persons that make up this generation that are likely to significantly increase the already high number of Alzheimer's Disease cases in the United States. Causes for concern include the high number of people within this generation reaching age of initial onset of Alzheimer's disease, the impact the disease as a whole on individuals, as well as their families, caregivers, and society. While there is no cure for the progression of Alzheimer's disease currently, research into the development of a cure has been deemed a priority. There are growing concerns of the level of care available to the elderly population and the lack of diagnosis in the early stages of the disease. Research presents resolutions for society, that when implemented, can alleviate some of these concerns. Further research into the alleviation of the current and future concerns that the Baby Boomer Generation generates for United States' society is discussed.

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TABLE OF CONTENTS

ABSTRACT	i
ACKNOWLEDGEMENTS	ii
CHAPTER 1	1
INTRODUCTION.....	1
Background.....	2
Significance of the Study	3
Purpose.....	4
Definition of Terms.....	4
CHAPTER 2	6
REVIEW OF THE LITERATURE.....	6
Overview of Organization of Chapter	6
Etiology and Prevalence	6
Impacts to the Individual, Families and Caregivers.....	9
Impacts of Formal Care	9
Impacts of Informal Care.....	10
Economic Impacts of AD on Society	12
Current Research on AD.....	14
Research on Factors Associated with AD	14
Current Concerns of the Level of Care for the Growing Older Population	15
Current Research on Treatment of AD	18
Current Solutions by National Associations	21
Current Solutions by the Government.....	23
Future Solutions for Individuals with AD, Their Families and Caregivers, and Society	24
Future Solutions for Medical Treatment.....	25
Future Solutions Regarding Early Detection of AD	26
Future Solutions by National Associations.....	27
Future Solutions Regarding Early Detection of AD	27
Future Solutions for Physicians and Primary Care Providers	28
Future Solutions by Future Research	29
Future Solutions of Services and Support.....	30

Future Solutions by the Government	33
CHAPTER 3	35
DISCUSSION.....	35
Implications for Professionals	40
Conclusions/Implications/Recommendations.....	41
REFERENCES.....	43
VITA	45

CHAPTER 1

INTRODUCTION

The study looks into contemporary U.S. society and assesses if the evolving needs of persons and families for the aging population with Alzheimer's disease. The purpose of this study is to look into the effects that the Baby Boomer generation will have on United States society, current concerns and future concerns that AD imposes, recent solutions, and possible solutions in the future.

Looking into the generational information, it is estimated that 79 million people were born in the United States between the years 1946 and 1964 (Goldsmith, 2011). This generation is known as the "Baby Boomers", and is one of the largest generations that have been seen thus far in the history of the United States (Goldsmith, 2011). The people who are from the start of the Baby Boomer generation have just surpassed the age of 65 (Goldsmith, 2011). According to a report by the Alzheimer's Association, an estimate of 1 in 8 people of this generation develops Alzheimer's disease or dementia after the age of 65 (Goldsmith, 2011). Looking at such a high number of people who make up the Baby Boomer generation, and having 1 in 8 people developing this condition, this adds up to around 10 million people of this generation developing Alzheimer's or dementia (Goldsmith, 2011).

Currently, there are an estimated 5.3 million people with Alzheimer's disease in the United States (Goldsmith, 2011). That number is expected to double, and by 2050 can be likely to hit 16 million people (Goldsmith, 2011). The impacts that Alzheimer's currently has on this country is already high, but by 2050 with the number of Alzheimer's cases on the rise, the impacts will be colossal (Goldsmith, 2011). Not only are the costs

significant, but also the physical and emotional toll that the disease takes on the individual as well as the family. It is of great importance to look into the effects that this disease currently has, and will have, on society.

Background

Current concerns related to this study include that there is no cure for Alzheimer's disease at this time (Goldsmith, 2011). Researchers, scientists, and the government have deemed finding a cure for the degenerative brain disorder that typically begins later in life of great importance in the United States (Wierenga & Bondi, 2011). Being that this disease slowly takes away memory and therefore the ability for a person to care for themselves, it takes a large toll on the person themselves (Goldsmith, 2011). When a person is no longer able-bodied and cannot care for themselves, the responsibility lies in the hands of family members, friends, or outside care givers (Goldsmith, 2011). One of the major concerns currently is the financial impact that this disease has not only for the individual, but also for the family and society (Goldsmith, 2011).

It is important for society and people within the healthcare fields to become aware of the growing concerns due to the large number of people that make up the Baby Boomer generation and the effects that Alzheimer's disease will have on not only the generation itself, but also on society as a whole. Within the fields that students study, each have a primary focus which can include working with people from birth to old age. When students and/or workers have a primary focus on the younger generations, they may not have the opportunity to learn about the concern of this age group and the impacts that it will have on society entirely. Awareness is of upmost

importance, as well as investigating and resolving the unresolved concerns of this subject.

Significance of the Study

Being that awareness and resolving the current concerns that this disease will have on society is of utmost importance, it is evident that there is a need to look into these concerns in depth and consider what may be potential possibilities to resolving these concerns. There are many concerns about the subject of Alzheimer's disease as a whole, especially with the Baby Boom generation starting to make up the older population in the United States. With the age of onset of Alzheimer's disease and those of the Baby Boomer generation meeting these ages of onset, there is high concern of how to care for a vast number of cases that is expected to rise significantly.

There are also concerns that there is still not a cure or a treatment that can prevent the progression of Alzheimer's disease. There is a very significant need for further research to find a treatment, and for the funding for this research to possibly one day find a preventative drug to prevent Alzheimer's disease from taking the lives of many people in the United States every year. The United States is currently faced with an issue that will impact individuals with Alzheimer's disease, and also their families and caregivers, and society as a whole. It is necessary for the effects of Alzheimer's disease on society to be looked at closely, and to find measures that can help resolve these effects and concerns that it poses. By putting forward research collected from the literature, it can provoke others within the healthcare and rehabilitation field to expand and hopefully gain resolution to one or more of the current concerns that are presented to today's society.

Purpose

The purpose of this research is to identify how significant of an impact that Alzheimer's Disease and the Baby Boomer generation will have on society as a whole, and to see what has been done and has been proposed to be carried out in the future to provide possible solutions to this impact. To approach this, I will look into the effects on the individual with Alzheimer's disease, families and caregivers, and on society as a whole. I will look into current research within the last five years to provide awareness on solutions that have been brought forward as well as possible solutions that can help to alleviate these future concerns. Research databases such as EBSCOhost and AcademicSearch Premier will be utilized, and the review of literature from various peer reviewed scholarly journals will be carried out to identify the information necessary for this research matter.

Definition of Terms

Upon providing a review of literature that was researched for the means of completing this paper, medical terms as well as the names of government programs are discussed. Clarification of terminology may be of benefit to those reviewing this review of literature.

Medicaid: a government program that pays for specific health services and nursing home care for the elderly (Simmons, 2011). Medicaid is the primary public payer for long-term care (Simmons, 2011).

Medicare: a federal health insurance program for those sixty-five or older, individuals with end-stage renal disease, and some people with disabilities (Tierney, 2013). To be eligible, age, special conditions, employment are all considered (Tierney, 2013).

Medicare was passed as a part of the Social Security Act of 1965, and is intended to give financial protection to older adults to protect them from the elevated cost of illness and hospitalization (Tierney, 2013).

Degenerative Brain Disorder: A disorder caused by the decrease of nervous system cells, or neurons (“Degenerative Brain Diseases,” 2014). The disorder is progressive, and as the brain decays over time, an individual loses intellectual function including speech, memory, and spatial skills (“Degenerative Brain Diseases,” 2014).

Formal Care: Care provided by staff including nurses and care workers, who are paid, and work in care settings such as hospitals, care homes, or in patients’ homes (“Formal Care of People with Dementia,” 2014).

Informal Care: Care provided by family members, friends, and/or neighbors, who are unpaid, that give regular, continuous assistance to an individual (“Informal Carer,” 2013).

Long Term Care: A variety of services and support services that assist with activities of daily living such as toileting, housework, money management, caring for pets, shopping for everyday needs, and taking medication (“What is Long-Term Care,” 2014)

CHAPTER 2

REVIEW OF THE LITERATURE

Overview of Organization of Chapter

Chapter two reviews Alzheimer's disease and the impacts of the Baby Boomer generation. The next section covers the current economic impacts of Alzheimer's disease to the individual and families and caregivers of individuals with Alzheimer's disease. Through this section, there is a focus on the impacts of formal care versus informal care. The review of the literature will continue with focusing on the economic impacts that Alzheimer's disease has on society as a whole due to the evolving needs of the Baby Boomer generation. After reviewing the impacts that Alzheimer's disease has not only on the individual of the Baby Boomer generation and their caregivers and families, but also on society, the review will focus on current research on the disease as well as on possible treatments that has been conducted as a result of these impacts. Finally, current solutions striving towards alleviating these impacts and solutions that will be carried out in the future will be looked at closely. The review of literature will conclude with solutions being targeted to alleviate the concerns of the Baby Boomer generation and the prevalence of Alzheimer's disease.

Etiology and Prevalence

Dementia is defined as a group of disorders that involve the pervasive, progressive, and irreversible deterioration of cognitive functioning due to an array of causes (Hamdy et al., 2013). In the United States, Alzheimer's disease is the most common form of dementia (Moschetti et al., 2012). AD affects an estimated 5.3 million people in the United States (George, Whitehouse, & Ballenger, 2011), and makes up

60-80 percent of all dementias (Carterville et al., 2012). Without effective treatments for Alzheimer's disease and other dementias, an estimated 16 million Americans will be affected by 2050 (Attea & Johns, 2010).

Alzheimer's disease (AD) is an upcoming public health disaster (Cummings, Ringman, & Metz, 2010), and is a major cause of disability and dependence for older adults (Casey, 2012). Every 70 seconds someone in the United States progresses to meeting the criteria for diagnosis of AD (Cummings, Ringman, & Metz, 2010).

Research shows that with the advancing age of the baby boom generation, that by 2050, 14-16 million older Americans are estimated to have AD (Wierenga & Bondi, 2011) (Attea & Johns, 2010). In 2012, the first cohort of 76 million people who are of the Baby Boomer generation who were born between 1946 and 1964 began to turn 65 (Yang et al., 2012). With the five million people in the United States who currently have AD, and the aging "baby boomer" population is expected to add 10 million individuals to this calculation (Cummings, Ringman, & Metz, 2010).

AD is an age-related degenerative brain disorder (Wierenga & Bondi, 2011). The main clinical manifestation of AD is a progressive global dementia syndrome that normally starts later in life (Wierenga & Bondi, 2011). Terms such as early-, mid-, and late-stage AD are terms used to measure the progression of AD (Simmons, 2011). Early stage AD is characterized by the individual no longer being able to function independently (Simmons, 2011). In mid-stage AD, the individual will show major gaps in memory as well as a compelling decline in cognitive function and personality changes may begin to be seen as well (Simmons, 2011). In the late stages of AD, many individuals no longer have the ability to verbally communicate, although some may be

able to recall a few words (Simmons, 2011). There is also apparent severe physical decline (Simmons, 2011).

Memory loss and cognitive decline, which are seen at the earliest point of AD, may be misconstrued by caregivers as normal symptoms of the aging process (Leifer, 2009). In the later stages of AD, people have the inability to carry out everyday tasks such as basic activities of daily living (Leifer, 2009). Activities of daily living include eating and bathing by oneself (Leifer, 2009). Also, people diagnosed with AD may show neuropsychotic symptoms including delusions, depression, and agitation at any point during the progression of the disease (Leifer, 2009).

On a biological standpoint, AD is described as a clinicopathological state which literally means the 'loss of the ability to think' (Shan, 2013). Patients show progressive cognitive failure including the loss of the ability to form and retrieve new memories, change in personality, and losing the ability to navigate in familiar environments (Shan, 2013). Common symptoms of AD are behavioral, and eventually individuals with AD require 24 hour care and hands-on assistance with activities of daily living (7). AD and many other dementias are progressive and over time, are fatal, and no one currently survives these diseases (Attea & Johns, 2010).

From 2000-2006, the death rate of AD increased 46 percent, while other major causes of death decreased (Attea & Johns, 2010). This figure is in part due to the advancement of recognition and willingness by doctors and families to report that AD was the cause of death (Attea & Johns, 2010). Also, as deaths from other diseases and causes continue to decrease, more Americans are living longer to develop and die from AD (Attea & Johns, 2010).

The greatest risk factor for AD is age, and the likelihood of developing AD increased from an estimated 1 percent in adults age 60 years to around 45 percent for those ages 85 and older (Wierenga & Bondi, 2011). Being susceptible to AD has also been found to be related to genetic risk factors (Wierenga & Bondi, 2011). Many times, AD goes undiagnosed until it has progressed to the debilitating stages of the disease which may play into the fact that less than half of people with the disease are diagnosed currently with AD (Leifer, 2009).

Impacts to the Individual, Families and Caregivers

Research has found that for families who provide care for family members diagnosed with Alzheimer's disease will face out of pocket expenses that will increase by 400 percent (Goldsmith, 2011). Providing care whether within an institution or at home, using paid or unpaid services is costly for a person with Alzheimer's disease (Fox & Max, 2009).

Fidelity Investment estimated that for a 65 year old couple retiring in 2009, they would require upwards of \$500,000 to cover medical expenses for retirement if one spouse was diagnosed with AD ("Planning Around Alzheimer's," 2009). This estimate is more than double the cost it would take to cover medical expenses if neither one was diagnosed with AD or another major disease ("Planning Around Alzheimer's," 2009).

Impacts of Formal Care

Direct costs that can include physician services, hospital care, nursing home care, medication, adult daycare, homemaker services, respite care, transportation services, and other services are all costs that an individual with Alzheimer's disease and caregivers are bound to face (Fox & Max, 2009). It is more likely for a person with

Alzheimer's disease who is a Medicare beneficiary to utilize inpatient hospital services and see a physician than with those without the diagnosis (Fox & Max, 2009). A study conducted in 2002 showed that the health care costs for individuals with and without AD and other dementias are greater in patients with AD than in control individuals due to the higher utilization of inpatient and skilled nursing facilities (Leifer, 2009).

In June 2009, Harvard University and the American Association of Homes for the Aging (AAHA) conducted a study on sustainable housing for the aging (Simmons, 2011). The study found that the average monthly rate for assisted living facilities that charge additional fees for Alzheimer's disease and care for individuals with dementia is \$4,270 monthly or \$51,240 per a year (Simmons, 2011).

Impacts of Informal Care

The burden has been shifted from the formal paid caregiving system to the informal unpaid caregiving system (Fox & Max, 2009). This shift has allowed for federal and state programs to save money, but without the assistance of caregivers, the financial cost to public programs would significantly increase (Fox & Max, 2009). The setting where those diagnosed with AD live is important in determining whether the care they receive will be informal or formal, and who will take on the economic burden of being a provider of that care (Fox & Max, 2009). Research had found that the cost of providing care for those with AD in the community entails unpaid informal care which accounts for three-quarters of the overall cost (Fox & Max, 2009). On the other hand, twelve percent of the cost of care for people who are receiving care within an institution is for unpaid informal care (Fox & Max, 2009).

While it may seem that financially it is less costly to keep a person diagnosed with AD residing in the home, it is clear that the economic burden of home care is evident (Fox & Max, 2009). Research has found that most of the expenses for caring for those with AD at home are taken care of by families (Fox & Max, 2009). Studies show that the cost of informal care and value of caregiving that is unpaid is immense, and ranges from two to three times the value of paid formal care (Fox & Max, 2009). Delaying institutionalization may result in the saving of cost to public programs like Medicaid that pays for care in skilled nursing facilities (Fox & Max, 2009). On the other hand, it can shift the burden of care onto family caregivers for a longer period of time (Fox & Max, 2009). In turn, the direct costs would be minimized, but the overall social costs would be maximized (Fox & Max, 2009).

Many unpaid caregivers report positive effects of caregiving (Attea & Johns, 2010). However, many also experience significant levels of depression, and emotional and serious negative effects on their health, employment, and financial security (Attea & Johns, 2010). Family and friends who provide care for those living with Alzheimer's disease need support for the continuation of providing care to allow those with cognitive impairments to reside in the home and avoid being institutionalized (Fox & Max, 2009). The indirect costs of the disease also include the value of days that the individual with the Alzheimer's disease diagnoses lost, the value of informal caregiver services by family members and friends that did not receive wages, and the costs of physical and emotional suffering that those with the disease and their families experience. However, those costs are many times rarely, if ever, calculated (Fox & Max, 2009).

Economic Impacts of AD on Society

Studies have shown that Alzheimer's disease poses an emotional and economic burden on those with the diagnosis, their caregivers, professionals providing services, and on society (Fox & Max, 2009). Society is faced with the economic cost of Alzheimer's disease in terms of all goods and services that are implemented for the prevention, diagnosis, treatment, and care of people with Alzheimer's disease (Fox & Max, 2009). As of 2011, U.S. healthcare costs such as long-term care, health care, and hospice services totaled \$183 billion with Medicare and Medicaid covering an estimated 70% of these figures (Moschetti et al., 2012).

Society is directly impacted by the cost of research as it relates to the diagnosis, treatment, causes, the course of Alzheimer's disease, as well as the cost of educating the public about the disease (Fox & Max, 2009). The National Institutes of Health spends an estimated two-thirds of a billion dollars a year on Alzheimer's related research (Fox & Max, 2009). Studies have found that the cost to Medicare to provide care to someone with Alzheimer's disease will hike up more than 600 percent (Goldsmith, 2011).

AD poses a burden that will continue in the future (Goldsmith, 2011). The U.S. economy will face financial impacts that will be excessive (Goldsmith, 2011). The annual cost to society for Alzheimer's disease has been estimated to surpass \$1 trillion by 2051 (Goldsmith, 2011). The financial cost to society and individuals with AD is forecasted to increase rapidly due to the aging population and those who are responsible for the planning and financing of health care face the difficulty of using the increasingly scarce resources against the current and future interventions aimed towards AD (Shearer et

al., 2012). AD is likely to overcome the resources that society can use to assist in the care of elderly individuals in the United States (Cummings, Ringman, & Metz, 2010).

Estimating the economic impact and cost to society for Alzheimer's disease is important for many reasons (Fox & Max, 2009). It is important to assess the magnitude that the disease impacts society as it relates to other major diseases (Fox & Max, 2009). Also, it is important for the public to raise awareness of the impact that AD has for the purpose of advocacy by placing an economic value on unpaid and paid care (Fox & Max, 2009). Likewise, it is important for policy makers to be informed of the need for health services in order to address AD. Finally, it is important to value the contribution of the labor by informal caregivers (Fox & Max, 2009). The total cost of AD on society is increasing due to the higher number of people living with the diagnosis of AD with the aging population living longer (Fox & Max, 2009).

People with dementia make up one-quarter of older customers of paid homecare services, and nearly one-half of customers of adult daycare, residential care, and skilled nursing facility care (Fox & Max, 2009). Alzheimer's disease also involves indirect costs that use resources (Fox & Max, 2009). People with AD who have severe impairments receive more formal and informal care than people with AD who have mild to moderate impairment, regardless if they are residing in the community or in a nursing home (Fox & Max, 2009). Based on current estimations of the prevalence rate of dementia and the cost of the care of dementia found in cross sectional studies, the National Institutes of Health (NIH) and the Alzheimer's Association believe that the increased size of population and extended longevity will advance to significant increases in dementia cases among the Baby Boomer generation (Yang et al., 2012). Data shows that this

could increase to as many as double the cases, and can surge the societal cost of dementia care that could go to upwards of \$20 million over the course of the next 40 years (Yang et al., 2012).

Research suggests that the cost of dementia care should be defined as a longitudinal cost over the course of the disease (Yang et al., 2012). A person diagnosed with AD for a shorter time before death at an older age may cost either more or less to society than with a patient with a continued course of the disease that begins at a younger age (Yang et al., 2012).

Current Research on AD

Current research has not found whether or not AD can be prevented (Shan, 2013). Technological progress is being done to find early detection that can give the chance for those with a family history of AD to be attentive about symptoms and take advantage of available assessments early on (Shan, 2013).

Research on Factors Associated with AD

However, research shows that there are factors that are associated with AD (Shan, 2013). Smoking and consuming alcohol increases the risk of AD (Shan, 2013). Studies show that being overweight or obese is associated as well (Shan, 2013). The higher the body mass index, BMI, the higher the risk of AD (Shan, 2013). Psychosocial factors have also been found to be associated with AD such as education and socioeconomic status. The lower that socioeconomic status, research shows the higher risk a person is to developing AD (Shan, 2013). Social network and social engagement is associated with the likelihood of developing AD as well. Having poor networking and engagement has been found to lead to reduced cognitive function and dementia (Shan,

2013). Likewise, social isolation leads to a higher risk of developing the disease (Shan, 2013). Physical activity has been found to delay the onset of dementia and AD (Shan, 2013). Studies also have found that mental activity has a protective effect against the development of dementia and AD (Shan, 2013).

Research has also found that dietary factors like the Mediterranean diet or the consuming of antioxidants, polyunsaturated fatty acids, cereals, vegetables, and omega-3 fatty acid minimize the incidence of dementia in population and observational studies (Aprehamian & Forlenza, 2013). Likewise, participating in activities that engage stimulation mentally, socially, and physically may delay the onset of dementia (Aprehamian & Forlenza, 2013). Maximized frequency of cognitive engagement may reduce the risk of dementia and also explain the relation between education and AD risk (Aprehamian & Forlenza, 2013).

Current Concerns of the Level of Care for the Growing Older Population

As the population ages, the social, economic, and personal costs of dementia are increasing (Casey, 2012). The quality of services being delivered in a long-term care setting is of utmost importance in offering adequate living for individuals with AD (Simmons, 2011). The long-term care system faces many difficulties (Simmons, 2011).

Population growth in people age 85 and older and other changes in society will boost demand for long-term care by 2030 (Simmons, 2011). This demand will lead to challenges in the current system that include low workforce retention, quality issues, lack of technology, and a significant reliance on out-of-pocket and Medicaid funding (Simmons, 2011). Current challenges will become more severe if they are not addressed (Simmons, 2011), including that funding is significantly lower than funding for

research for other diseases with alike or less effect in terms of prevalence, morbidity, mortality, and costs (Attea & Johns, 2010).

The Alzheimer's Association feels that much more is necessary to improve care for individuals with AD (Attea & Johns, 2010). A problem of great significance is under detection and diagnosis (Attea & Johns, 2010). Research has found that less than half of all individuals with dementia in the United States have a diagnosis of AD in their primary care medical record (Attea & Johns, 2010). Reasons for this may be due to the challenge of detecting dementia in routine care visits, insufficient time with the physician and reimbursement for diagnostic evaluations, some lack of knowledge of physicians on how to carry out diagnostic evaluation for dementia, lack of approval for evaluation by individuals, individual and family concerns regarding the stigma related to the diagnosis of dementia, and physician doubt of the value of diagnosing an individual with AD if they feel there is "nothing they can do" (Attea & Johns, 2010).

These factors are not the only issue (Attea & Johns, 2010). Numerous individuals with AD and their families do not receive many kinds of care and services available to them to assist them with their needs (Attea & Johns, 2010). These services include ongoing medical management to assist in maintaining the individual's physical health and functioning, medical management, coordination of primary and specialty medical care, information and education associated with community care; information, consultation, and support for families to assist with caregiving needs, and information and support during peak stress situations like hospitalizations and making decisions regarding residential care, concerns of safety, and end-of-life concerns (Attea & Johns, 2010).

There are many factors associated with why they are not receiving these care and service options (Attea & Johns, 2010). There are an inadequate number of geriatricians and other physicians who have been trained to detect and diagnose AD and manage care for individuals with AD (Attea & Johns, 2010). Also, insufficient physician time and reimbursement for care planning, care coordination, and family consultation and support (Attea & Johns, 2010). Some physicians reported that they are not knowledgeable enough about possible valuable community services and how to assist families with caregiver tasks (Attea & Johns, 2010).

Policy makers, researchers, and scientists have made the quality of elderly care of priority (Simmons, 2011). As the older population in the United States increases significantly, more families are facing the challenge of providing quality care for the elderly person in the home (Simmons, 2011). Even after realizing they need professional help, families are often reluctant to send a member of the family to an institution for long-term care due to feelings of guilt and concerns about the treatment of their family member (Simmons, 2011).

Due to AD, individuals with this diagnosis need a substantial amount of care, patience, and understanding (Simmons, 2011). The need for professionals in the workforce who are well-trained is a major part of what is being addressed about sustainable living (Simmons, 2011). Besides challenges with financing and service delivery, providers and consumers experience difficulty bringing in and maintaining paraprofessional workers to assist people who need long term care (Simmons, 2011).

There is a shortage of paraprofessional workers, who are certified nursing aides in nursing homes and home care aides, and is currently a critical concern for providers

of long-term care (Simmons, 2011). Currently, there is difficulty in finding staff, not only as administrators, but also as direct and indirect caregivers that have the ability to perform professionally within their specialties as well as developing positive relationships with residents and other members of staff (Simmons, 2011).

With research that has been conducted up to this point, it has still remained a significant challenge for clinicians and researchers to prevent AD (Aprehamian & Forlenza, 2013). There has been recent emphasis on focusing on identifying possible modifiable risk factors for dementia, including interventions designed to promote cognitive engagement, physical activities, nutrition, as well as the increase in antihypertensive medication use (Aprehamian & Forlenza, 2013).

Another concern with AD and the care of the aging population is that in 2005, there was one geriatrician for every 5,000 Americans 65 and older. Only nine medical schools in the United States have departments of geriatrics, out of 145 (Simmons, 2011). Very few schools have geriatric courses requirements (Simmons, 2011), hospitals allow for internists to graduate with as little as six hours of geriatric training (Simmons, 2011).

Current Research on Treatment of AD

The U.S. Food and Drug Administration (FDA) have given approval to five medications to assist in the treatment of symptoms of AD, but there are no current approved treatments that can prevent or cure AD (Attea & Johns, 2010). Studies have found many benefits for early treatment and being persistent in implementing those methods of treatment (Leifer, 2009). Research has found that detecting AD early may assist in improving outcomes like cognition, function, and behavior (Leifer, 2009).

Even though there is no current disease-modifying drug therapy approved for AD, there is emphasis placed on identifying people in the pre-clinical stage so that as strategies of treatment are developed, they can be used during the earliest period of AD when they are most effective (Aprehamian & Forlenza, 2013). Recognizing and diagnosing AD early provides individuals and families with an option to plan for the future while the patient still has the opportunity to be a part of the process (Leifer, 2009). Numerous drug therapies are being investigated for potential use for people with AD and include donepezil, rivastigmine, galantamine, memantine, ginkgo biloba, and vitamin B12/folate (Fox & Max, 2009).

Currently, ChEIs are the approved therapy drug for mild-to-moderate AD (Leifer, 2009). Numerous studies have been carried out looking at the safety and efficiency of donepezil, rivastigmine, and galantamine (Leifer, 2009). Studies have concluded that ChEIs are an effective treatment for AD in the mild-to-moderate stages (Leifer, 2009). ChEIs assist with the cognitive, functional, and behavioral symptoms that appear during the mild-to-moderate stages of AD (Leifer, 2009).

Likewise, another study was conducted with the study of rivastigmine over the course of 26 weeks (Leifer, 2009). Over the duration of the study, patients who received rivastigmine experienced a minor decline below baseline. However, patients who received placebo showed a much more significant decline (Leifer, 2009). Individuals with AD should be encouraged to be persistent with treatment if possible (Leifer, 2009).

A study was also done looking at the effectiveness of donepezil which showed that a washout break from therapy for 6 weeks showed results of unrecoverable losses in function (Leifer, 2009). With the current treatments that are available, long-term

sustained improvements may be a vast expectation (Leifer, 2009). In pharmacotherapy of AD, giving the opportunity to stabilize the symptoms and delaying further decline are of primary importance of treatment (Leifer, 2009).

There are many pharmacologic treatments for AD; however individuals with AD are many times not prescribed one of the cholinesterase inhibitors that have been approved to treat mild-to-moderate AD or all stages of AD (Leifer, 2009). Likewise, the Nmethyl D-aspartate receptor antagonist memantine, which has been approved for the treatment of moderate-to-severe AD, is also many times not prescribed (Leifer, 2009). A community-based study found that out of 2114 individuals with mild-to-moderate AD who were a part of the study, only 35% were prescribed one of these approved treatments (Leifer, 2009).

Drugs that have been developed that may treat AD have had limited success when used in trials (Casey, 2012). By understanding these limitations, it allows nurses to support patients with AD as well as the family with education about treatment options (Casey, 2012). The reason for treatment is to delay AD from progressing and may not result in improving the symptoms of AD (Leifer, 2009). For example, a 5 month study was conducted that treated patients with AD with galantamine which as a result showed very little improvement (Leifer, 2009). However, patients that were given the placebo resulted in having a decline in Neuropsychiatric Inventory score (Leifer, 2009). What this study shows is that for a healthcare practitioner who is treating an individual with AD, it may seem as if the treatment is not effective, when the treatment results in preservation of function over time (Leifer, 2009).

Current Solutions by National Associations

The Alzheimer's Association is the largest private funder of research, and has been calling for the federal government to expand funding for Alzheimer's disease research (Goldsmith, 2011). The mission of the Alzheimer's Association is to eliminate AD and related dementias through research, maximization of care and support for those affected, and minimizing the risk of dementia by promoting brain health (Attea & Johns, 2010). The Alzheimer's Association is a voluntary health association with over 70 chapters in the world (Attea & Johns, 2010). The association provides funding to research; provides information, support, and services to those with AD and other dementias as well as their caregivers; and carries out public information campaigns to raise awareness of AD and related dementias (Attea & Johns, 2010).

The Alzheimer's Association also advocates at the federal, state, and local levels for funding research (Attea & Johns, 2010). Also, they advocate with the American Geriatrics Society, for public policies to advance services and care for individuals with AD (Attea & Johns, 2010). In 2011, the budget for research of Alzheimer's disease was \$480 million (Goldsmith, 2011). The Alzheimer's Association has stressed that partially because of funded research by the government; the death rates for a number of major diseases have decreased significantly (Goldsmith, 2011)

The Alzheimer's Association has proposed that Medicare coverage and reimbursement impose a package of primary care services. These services include routine procedures for the detection of possible AD in primary care offices and clinics, diagnostic evaluation, and initial care planning over a four month period following

diagnosis and documenting the diagnosis and plan of care in the individual's medical record (Attea & Johns, 2010).

In the past few years and throughout the healthcare reform debate, advocacy for care coordination has been targeted (Attea & Johns, 2010). Working closely with the American Geriatrics Society, the Alzheimer's association has advocated for government policies and programs to boost coordination between primary and specialty medical care. Likewise, they have also advocated increasing coordination between medical and nonmedical settings and providers (Attea & Johns, 2010). These policies and programs are important and beneficial for people with AD and related dementias due to cognitive impairment and inability to coordinate their own care (Attea & Johns, 2010). The Alzheimer's Association encourages the U.S. Congress, state legislatures, and federal, state, and local government agencies and policies to advance care and services for those with AD and related dementias (Attea & Johns, 2010).

The Alzheimer's Association offers a 24/7 helpline for those with AD and their families and caregivers (Attea & Johns, 2010). The helpline is staffed with informational specialists and master's level counselors who give information, education, consultation, support, and community referrals to those with AD and their families and caregivers (Attea & Johns, 2010). The local chapter follows up with these individuals on the following business day to give continued information, support, and referrals for services that are necessary (Attea & Johns, 2010). The Alzheimer's Association also gives public information programs and numerous training programs for care providers (Attea & Johns, 2010).

Current Solutions by the Government

In January of 2011, President Obama deemed AD a national priority by signing into law the National Alzheimer's Project Act (NAPA) (1). The act will create a coordinated national plan to assist in the overcoming of the AD crisis and will target the coordination and evaluation of national efforts of AD research, clinical and institutional care, home and community based programs and the outcomes (1).

The healthcare reform law that has recently been enacted includes care coordination provisions that will be beneficial for those with AD, and includes transitional care and medical home programs, care coordination pilot projects, and policies to reduce hospitalizations that are unnecessary (Attea & Johns, 2010). Other provisions from the healthcare reform that will boost care for those with AD include increased federal funding for geriatrics training, a national long-term care insurance program, and increased federal payments for Medicaid home and community services (Attea & Johns, 2010).

President Obama's administration recently announced the plan to boost federal funding for AD research and disease management which highlights the importance of this health concern to the public (Moschetti et al., 2012). This announcement indicates the immense need for more cost-effective, evidence-based clinical, community, and public health interventions (Moschetti et al., 2012). The research is intensely focused on the treatment, detection, and prevention of AD (Shearer et al., 2012). Currently, the federal government contributes over \$25,000 to assist in the care of those with the Alzheimer's disease for every \$100 they put towards Alzheimer's research (Goldsmith, 2011).

Future Solutions for Individuals with AD, Their Families and Caregivers, and Society

According to Goldsmith 2011, society must become more educated about AD. The public can put in place strategies that research has shown to delay AD symptoms, increase brain health, and cognitive function (1). The National Institute on Aging recommends that mental stimulation, social engagement, physical exercise, and a healthy diet that includes antioxidants (1). The Division of Aging implements these components into their programs and services (1).

For those who strive to maintain brain health for as long as possible, research shows that staying active and mentally curious is beneficial (Leifer, 2009). The Alzheimer's Association came out with the "maintain your brain" initiative which suggests that reading, writing, working crossword puzzles, playing board games, gardening, staying physically and socially active, and maintaining a brain-healthy low fat, low cholesterol, and high levels of dark colored fruits and vegetables may all be ways to do so (Leifer, 2009).

Carrying out these activities will need to be suited to an individual considering their level of cognition. This will also change as AD progresses in the individual (Leifer, 2009). Other factors that are beneficial to individuals with AD as the disease progresses are providing a safe environment for the individual and minimizing stimulation in excess (Leifer, 2009).

For each symptom that may become expressed during the progression of the disease, many tips are available for caregivers (Leifer, 2009). With indecisiveness, the caregivers are encouraged to reduce choices (Leifer, 2009). If an individual with AD is

showing disorientation, the caregiver is encouraged to provide cues, avoid relocation, and possibly bring items that are familiar to the individual (Leifer, 2009). If hallucinations are present, the caregiver should not be overly concerned as long as they are not distressing to the individual, but if treatment is necessary, antipsychotic agents can be considered (Leifer, 2009). However, the family and caregivers of the individual must be fully informed of the risks as well as the benefits of these medications (Leifer, 2009). If the caregivers notice wandering, which typically occurs in moderate-to-severe AD, later in the progression of the disease, it is suggested that the family or caregivers register them in the Medic Alert and Safe Return Program, make the environment secure with complex handles, and to inform neighbors (Leifer, 2009).

Future Solutions for Medical Treatment

There is urgency for the development of new drugs with disease-modifying properties for AD (Aprehamian & Forlenza, 2013). A disease modifying drug is defined as a pharmaceutical agent that is intended to slow the progression of the neurodegenerative process by inhibiting crucial events in the pathophysiology of AD, which constricts that pathological load (Aprehamian & Forlenza, 2013). AD presents a particular problem to an ageing society due to the cost of care and the progression towards effective treatments that can prevent the advancement or reversal of AD to provide a noteworthy quality of life for as long as possible (Casey, 2012). Investigating the best care options will continue to be of importance until sufficient progress can be made on the nature of AD, its pathogenesis and treatments, or a cure (Casey, 2012).

When treatment can be given and is successful, it can reverse or even slow the decline of cognition associated with AD (Fox & Max, 2009). This in turn can delay the need for institutionalization and significantly minimize the need for informal care due to the improvement of functioning for a person with AD (Fox & Max, 2009). There is a push to attempt to convince policy makers that putting a drug on the Medicaid formulary will results in long-term-care savings for the population of people with the diagnosis of AD (Fox & Max, 2009). This could result in reducing the costs to programs such as Medicare and Medicaid (Fox & Max, 2009).

Future Solutions Regarding Early Detection of AD

Early detection may assist in reducing costs related to AD treatment (Leifer, 2009). Nursing home care is the most expensive component of caring for an individual with AD (Leifer, 2009). In turn, delaying placement into a nursing home can help to lower the cost of managing AD (Leifer, 2009). A study was conducted to assess the relationship between treatment with donepezil and time of placement in a nursing home (Leifer, 2009). The study showed that an individual being placed in a nursing home was delayed significantly for individuals using at least 5 mg/day of donepezil, and a cumulative dose-response relationship in delaying nursing home placement was observed in the persistent use of donepezil (Leifer, 2009). For individuals using 5 mg/day or more of donepezil for a duration of 9-12 months, the delay of the initial placement of nursing home care for dementia was 21.4 months, and permanent placement into a nursing home was delayed for 17.5 months compared with individuals given less than 5 mg or less for a duration of 6 weeks (Leifer, 2009).

Future Solutions by National Associations

Currently, Medicare covers and pays for specialty physician care such as diagnostic evaluations, and for some imaging tests (Attea & Johns, 2010). As an improvement, the Alzheimer's Association is pursuing Congressional support and passage of the Alzheimer's Breakthrough Act. The Alzheimer's Breakthrough Act asks for a \$2 billion investment annually in Alzheimer's research that would strengthen AD research as a priority of the National Institute on Aging (Attea & Johns, 2010). The act would also give \$15 million for comprehensive awareness and education campaign efforts on AD and related dementias for health professionals and the public which would be led by the Centers for Disease Control and Prevention (Attea & Johns, 2010).

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Future Solutions for Physicians and Primary Care Providers

Due to the burden of AD falling on families of individuals with AD, primary care providers are encouraged to monitor signs of caregiver stress and provide support (Leifer, 2009). Numerous strategies are available to be shared with caregivers, and include referrals to support groups and a local Alzheimer's Association chapter (Leifer, 2009).

Primarily, individuals with the early stages of AD will first seek care in the primary care setting (Leifer, 2009). Primary care providers should be open to the signs and symptoms of AD since they are typically the first healthcare professionals that people with AD see (Leifer, 2009). There are many tools that assist clinicians in recognizing symptoms of AD and many treatments that may delay progression of those symptoms (Leifer, 2009).

Early diagnosis of AD has several benefits (Leifer, 2009). Without a diagnosis, the behavior an individual with AD expresses may be a challenge for family members to understand (Leifer, 2009). Family members might put blame on the individual for behaving in a way that is beyond their control, and may have denial that there is indeed a medical problem (Leifer, 2009). An early diagnosis may allow for an increase of safety if members of the family are aware that activities like driving or cooking may be high risk for the individual with AD (Leifer, 2009). An individual with AD may have the opportunity to participate in financial and legal planning, advance directives, and to discuss long-

term care options (Leifer, 2009). When a diagnosis has been made, the individual, their family or caregiver has the opportunity to start treatment (Leifer, 2009).

Having a clearer understanding of treatments that are available and awareness that persistent and continuous treatment gives to individuals with AD through the moderate-to-severe stages of the disease, is necessary to ensure that these individuals are given optimal treatment and care throughout the duration of the disease (Leifer, 2009). The expectations for treatment provided by clinicians should be realistic, and the expectations of the individual and their caregiver should be managed carefully to suit their needs (Leifer, 2009).

The physician and other care professionals would provide the care planning (Attea & Johns, 2010). It would be carried out in collaboration with the patient, when possible, but would also utilize telephone counseling and in-person consultations with the family or caregivers of which Medicare does not currently cover if the individual is not present (Attea & Johns, 2010).

Future Solutions by Future Research

AD research must increase adequately with the magnitude of the threat it poses to the US (Cummings, Ringman, & Metz, 2010). Research into how AD produces the effects in the brain and how to best address these effects in human therapeutics must be increased (Cummings, Ringman, & Metz, 2010). The UCLA-Easton Alzheimer's Center plans to increase resources, collaborations, and productivity to discover and meet the scientific and social challenges that AD poses (Cummings, Ringman, & Metz, 2010).

Future Solutions of Services and Support

There is a need for immediacy for services and programs to provide assistance and support to informal caregivers (Fox & Max, 2009). By engaging people to understand and think about AD and conditions that are related to it, there can be further understanding of the disease, which can bring social change (Fox & Max, 2009). By the public taking into account that the “phenomena of altered states of consciousness can teach lessons about living and giving that are as valuable and important as our everyday or “normal” way of being, then we may then begin to perceive different options for addressing the needs of people with AD and those who care for them that transcend the approaches that have shaped the Alzheimer’s policy discourse in America” (Fox & Max, 2009).

An approach to AD that takes into account not only the discovery for medications but also possible long-term-care strategies is extremely important, according to Fox & Max, 2009. This is due to the fact that people are being given an AD diagnosis earlier in the beginning stages of AD than previously before (Fox & Max, 2009). According to Fox & Max 2009, if the general public begins to think in these terms, then it is possible to shed light on how to provide the best care for those with AD and other disabilities that is cognizant of the social and medical needs of a person (Fox & Max, 2009). Likewise, there are rehabilitative measures that can be taken to assist with the needs of individuals with AD (Leifer, 2009). These measures include developing and implementing a daily routine that is predictable, simplifying tasks, and giving the opportunity for independence (Leifer, 2009).

The expectations of the individual with AD and their caregivers are encouraged to be managed carefully and discussed, and being referred to an AD support group is beneficial at this point in time (Leifer, 2009). It is also necessary for the long-term care system to explore innovations to better the mix of financing and to improve delivery to enhance the services that are being provided to long-term care consumers and their families (Simmons, 2011).

With the aging of the baby boomer generation, housing developers are going to be attentive to the physical design of homes, and may be more pressured to build homes in which people can age in place (Simmons, 2011). The overall trend is steering away from institutional and medical-based models (Simmons, 2011). The trend is towards a social, community based, residential, or home-like models (Simmons, 2011). Consumers are increasing a demand for more opportunities in options of care (Simmons, 2011).

It is vital that owners and administrators understand what their management and staffs responsibilities are and how to identify if they are being implemented accurately (Simmons, 2011). They should give clear job descriptions and job responsibilities, have a system for the observation and matching performance with what is expected, hold staff accountable for performance, give regular feedback, and use those results to identify and correct practice and performance concerns (Simmons, 2011). The delivery in care being carried out properly would allow for staff and practitioners to predict concerns more accurately and to explain to an individual and their family information about the care being received (Simmons, 2011).

Many long-term quality initiatives are attempting to better the quality of care and life for elderly individuals in the care of long-term facilities (Simmons, 2011). One initiative is to encourage the transformation and medical institutional settings to home-like settings that place emphasis on privacy, choice, and a feeling of well-being (Simmons, 2011).

Likewise, Quality First, is another initiative that is the first national initiative that asks providers to achieve excellence in the quality of care and services for elderly individuals (Simmons, 2011). Another initiative is Advancing Excellence in America's Nursing Homes, which brings together providers, government agencies, and consumers to encourage quality by setting goals that are measureable for providers (Simmons, 2011).

The long-term care system needs to ensure a vigorous supply of professional and paraprofessional workers and address challenges recruiting, training, and retaining these workers (Simmons, 2011). If there is no change, these challenges will worsen and have a negative effect on consumers (Simmons, 2011). The long-term care system has many goals including ensuring safety, preventing injuries, and enhancing the quality of care and the quality of life of individuals in their care (Simmons, 2011). The government, providers, consumers, and long-term care healthcare professionals need to address quality issues that are in the system currently (Simmons, 2011). Implementing advanced technology will enhance the quality of care and independence of their patients as well as care management and care coordination (Simmons, 2011).

Long-term care mainly targets maintaining or improving the ability of the elderly with disabilities like AD, to function as independently as possible (Simmons, 2011).

Social and environmental needs are also part of long-term care (Simmons, 2011). Long-term care is available in a range of settings and what the individual and their caregivers choose is dependent on the individual's needs and preferences, availability of informal support, and the reimbursement source (Simmons, 2011).

Providing competent and motivated employees ongoing training in interactive relations with their patients, training in ethics, and training in delivering care in a positive environment is crucial with successful management of communities for people with AD (Simmons, 2011). Employees in the long-term setting need the authority and responsibilities to make decisions about the care residents receive (Simmons, 2011).

In long-term care, an individual should have the ability to continue to live life on their terms and to be provided with an appropriate level of care including with unanticipated needs of the individual (Simmons, 2011). It is important that caregivers maintain a professional attitude and have knowledge of how each individual's cultural background continues to influence their present attitudes and behaviors (Simmons, 2011). Personalized assessment tools assist the caregivers in knowing an individual's personality and preferences as well as their changing needs (Simmons, 2011).

Future Solutions by the Government

Since the Patient Protection and Affordable Care act was passed, the U.S. health care system has been going through many changes (Yang et al., 2012). There have been some policy interventions that target lifestyle change and are under consideration (Yang et al., 2012). For example, the YMCA version of the Diabetes Prevention Program nationally might minimize Medicare spending by an estimated \$50 billion

across the whole Baby Boomer cohort by preventing chronic diseases that are associated to obesity (Yang et al., 2012).

Proposals of financial reform of Medicare and Medicaid and new service models are being considered as well (Yang et al., 2012). Suggestions such as changing Medicare hospice care guidance to be based on the care of the patients' need instead of estimated life expectancy and the proposition of Program for All-inclusive Care for the Elderly model to encourage comprehensive care for elderly who become frail (12). Further studies in regards to the cost effectiveness of these policy recommendations will allow for valuable insights (Yang et al., 2012).

CHAPTER 3

DISCUSSION

The impacts of AD due to the aging baby boomer population have raised concerns for the future. Currently, AD affects around 5.3 million people in the United States, and by 2050 is projected to directly impact another 10 million individuals of the baby boomer generation.

Being that AD is an age-related degenerative brain disorder, it is characterized by progressively manifesting a decline in cognitive and physical function, personality, memory, and neuropsychotic symptoms over the course of time for an individual with the disease. Due to the effects that AD projects onto an individual, it is necessary for those who enter the later stages of AD receive 24 hour care and direct assistance with activities of daily living.

The greatest factor playing into AD is age, and the chances of developing AD symptoms are approximately 1 percent in adults age 60 to 45 percent of those age 85 and older. This is important to note with the baby boomer generation starting to hit 65 years of age, when onset of AD is becoming prevalent.

There are many concerns that not only individuals with AD face, but also their families/caregivers, medical doctors, primary care providers, and society as a whole. Individuals and their families and caregivers face high cost of care and significant impacts to their own well-being, whether if formal care or informal care is chosen as a method of care services. The cost and value of unpaid service that families and caregivers provide is rarely calculated and taken into account the amount of the costs. AD many times goes without being diagnosed until the later and debilitating stages.

As mentioned above, not only do individuals with AD and their families and caregivers face significant impacts due to AD, but so does society. Society faces an economic burden with the costs of the research, goods, and services for preventing, diagnosing, treatment, and care of those with AD. The economic impacts are not coming to a halt in the near future. It has been estimated that the financial cost to individuals as well as society is bound to increase dramatically due to the aging population.

It is of great importance to understand the economic impact and cost to society that AD will have because of the impacts to society, public awareness, advocacy, awareness of policy makers, and to be aware of the contribution that informal caregivers provide to those with AD.

So far, researchers have not been able to establish whether or not AD is preventable. However, research has found there are factors that increase the likelihood of an individual developing AD including lifestyle, socioeconomic and education status, and dietary factors.

Currently, there are many concerns in regards to the level of care that is being provided for the older population. These concerns are only projected to get more severe if these issues are not addressed and solutions are not made. Due to the aging population increasing rapidly, there will be a significant increase in demand for long-term care by 2030. There are current issues standing such as low workforce retention, issues of quality, lack of technology, and a reliance on out-of-pocket and Medicaid funding.

Another concern is the under detection and diagnosis of AD which is prevalent in the United States. Research has found that this may be due to a variety of reasons including the current difficulty of detecting dementia during routine visits. Along with the concern of under detection and diagnosis, many individuals and families are not being provided with the many services and opportunities for care that are available. The reasons for this significant problem are due to the lack of knowledge of some physicians on possible community services of value and how to assist families with caregiver tasks. When it does come to long-term-care, there is an excessive need for professionals and paraprofessionals to care for this population and to have appropriate training to do so.

While there have been five medications approved to assist in treating AD, there is still no cure or preventative drug therapy. However, research has found that there are significant benefits of early detection of AD. Even with this breakthrough in research, it is still imperative that a preventative drug therapy be developed to stop the progression of AD.

There are many things being done currently to address these concerns and push towards finding solutions. The Alzheimer's Association plays a major part in finding answers to many of the concerns earlier stated. The association pushes for funding from the federal government, conducts research, maximizes opportunities for care and support, and educates the public on awareness. The Alzheimer's Association has also made proposals to better current federal programs such as Medicaid.

The government is also addressing these concerns and taking a stand in finding ways to alleviate these concerns. In the past few years, laws have been signed to assist

in finding answers to the prevention of AD by funding research and addressing the need for care.

While there has been some progress in striving to find answers to the concerns that AD poses with the baby boomer generation, there are many things that society as a whole is pushed to become aware of and implement. When it comes to individuals with AD and their families and caregivers, there are many things that they can do in the future. There are many recommendations of lifestyle habits and activities that individuals can carry out to assist in the delay of onset of AD. For families and caregivers that are assisting an individual who has already displayed symptoms of AD, there are many strategies that are suggested to assist with the care and in turn can assist with caregiver stress.

It is imperative for a drug with disease-modifying properties of AD to be developed in the future. If such a drug is developed, it can reverse or slow the progression of cognitive decline which would delay the need for an individual to be institutionalized and for informal caregiving to require.

Further research needs to be conducted on the current treatments and appropriate dosages that would delay the need for long term care and informal caregiving. The Alzheimer's Association is pushing for funding further future research on these issues and others.

There is a push in the future for early detection of AD, which may reduce the costs that are associated with treating AD. Along with early detection of AD, primary care providers are being encouraged to look for signs of caregiver stress and provide

support. Numerous strategies are available for caregivers, and referrals may be made to support groups to assist their needs.

There is a significant need for an understanding of available treatment, and the effects that persistent treatment has on an individual with the disease. Primary care providers need to lay out realistic treatment expectations, and in a fashion that suits the needs of each individual case. In the future, doctors are being pushed to be a part of care planning to assist the needs of their patients.

In the future, it will be imperative that services and programs are available for supporting informal caregivers. There needs to be further understanding of AD, which can in turn bring social change. It is important for professionals and paraprofessionals within the long-term care setting to address the issues with training and the retention of workers.

Within the long-term care setting, and with the growing need for services for the baby boomer generation, it will be important for the settings to be based on a social, community based, and residential, home-like model. With the increase of demand for opportunities in care options, it will be imperative that these options be available as needed.

To further address the concern of the level of care being provided in long-term care facilities, there are needs that need to be met by owners and administrators. By giving clear job descriptions, job responsibilities, a system for observation and performance, holding staff accountable as well as giving feedback, there would be an opportunity for the advancement of current care.

Implications for Professionals

It is evident that there are evolving needs for the baby boomer generation as it relates to AD. With such high numbers of individuals rapidly becoming a part of the older population, it is imperative that the concerns that society faces be addressed. With the 10 million people that make up the baby boomer generation that are estimated to develop AD, there are many things that society need to do to prepare for the evolving needs that this imposes. There are many concerns, primarily relating to a lack of a disease-modifying drug and preventative medicine, the level of care older people are receiving, lack of awareness, lack of knowledge and training, and a lack of enough funding to generate the research needed to potentially come closer to finding an effective drug therapy.

It is important for professionals to be aware of the evolving needs for the baby boomer generation. The toll of such a high number of people requiring long term care and support services is dramatic. If enough funding can be implemented for future research to discover if there is an option for prevention, it can help lead to the discovery of a disease-modifying drug that will alleviate many of the other concerns that society faces.

The level of care within long term care facilities needs to be evaluated. The research shows that there are many ways to bettering these facilities and in turn will help alleviate individual as well as family and caregiver stress. If staff is properly trained and properly being oversaw by management and owners, then better care will be possible, which in turn may give families and caregivers more of a sense of peace with allowing their loved one to enter into long term care instead of being provided primarily

informal care. This would allow for less stress upon the families and caregivers and alleviate many of the concerns that they are currently facing. Another important implication that research shows is the importance of allowing individuals to have as much of a feeling of independence as long as possible. If this is implemented in the long term care setting, then this may also give caregivers and families a sense of peace.

Training and knowledge of AD, services and support available, and care management are all important when working with an individual with AD. Primary care providers need to be aware of not only the current treatments that can assist with symptoms of AD, but also resources where the individual and family and caregivers can receive support through the progression of the disease.

Conclusions/Implications/Recommendations

Research has found that there are many concerns that are facing U.S. society with the evolving needs for the baby boomer generation as it relates to AD. One of the important concerns that have been noted in the review of literature is a need for awareness and public education of AD and related dementias. There is also need for the public awareness of the concerns that AD poses. If people within the rehabilitation field as well as other healthcare fields become aware of this rising concern, it may bring about more of a desire for people to become more actively involved in assisting this population.

Also, if physicians and primary care providers become more aware of support services for individuals and their families and caregivers, they will be able to refer them to those who are rehabilitation counselors that will be able to provide support for individual stress as well as family/caregiver stress. People in turn will be able to learn

more about further services that can further assist them in the process of helping their loved ones. People who work in the field of rehabilitation will be able to do their part in assisting those affected by AD, and help to answer many concerns that society faces currently, as well as in the future.

REFERENCES

- Attea, P., & Johns, H. (2010, August). Confronting Alzheimer's disease and other dementias. *Journal of the American Geriatrics Society*. pp. 1587-1590. doi:10.1111/j.1532-5415.2010.02963.x.
- Aprahamian, I., Stella, F., & Forlenza, O. V. (2013). New treatment strategies for Alzheimer's disease: is there a hope?. *Indian Journal Of Medical Research*, 138(4), 449-460.
- Carter, C. L., Resnick, E. M., Mallampalli, M., & Kalbarczyk, A. (2012). Sex and gender differences in Alzheimer's disease: recommendations for future research. *Journal Of Women's Health* (15409996), 21(10), 1018-1023. doi:10.1089/jwh.2012.3789
- Casey, G. (2012). Alzheimer's and other dementias. *Kai Tiaki Nursing New Zealand*, 18(6), 20-24.
- Cummings, J. L., Ringman, J., & Metz, K. (2010). Mary S. Easton Center of Alzheimer's Disease Research at UCLA: Advancing the therapeutic imperative. *Journal Of Alzheimer's Disease*, 19(2), 375-388. doi:10.3233/JAD-2010-1286
- "Degenerative brain diseases." LeHigh Valley Health Network. N.p., n.d. Web. 28 Mar. 2014. <http://www.lvhn.org/conditions_treatments
- Fox, P., & Max, W. (2009). Cost and caring: policy challenges of Alzheimer's disease. *Generations*, 33(1), 53-59
- "Formal care of people with dementia." Alzheimers Society. N.p., n.d. Web. 28 Mar. 2014. <http://www.alzheimers.org.uk/site/scripts/documents_info.php?documentID=402>
- George, D., Whitehouse, P., & Ballenger, J. (2011). The evolving classification of dementia: placing the DSM-V in a meaningful historical and cultural context and pondering the future of "Alzheimer's". *Culture, Medicine & Psychiatry*, 35(3), 417-435
- Goldsmith, K. (2011). Alzheimer's crisis looms as Baby Boomers age. *Hudson Valley Business Journal*, 2210.
- Hamdy, R. D., Hamdy, L. D., Hudgins, L. D., & Piotrowski, N. D. (2013). Dementias. *Magill'S Medical Guide* (Online Edition),
- "Informal carer—relationship to care recipient." Australian Institute of Health and Welfare. N.p., n.d. Web. 28 Mar. 2014. <<http://meteor.aihw.gov.au/content/index>

- Leifer, B. (2009). Alzheimer's disease: seeing the signs early. *Journal Of The American Academy Of Nurse Practitioners*, 21(11), 588-595. doi:10.1111/j.1745-7599.2009.00436.x
- Moschetti, K., Cummings, P. L., Sorvillo, F., & Kuo, T. (2012). Burden of Alzheimer's disease-related mortality in the United States, 1999-2008. *Journal Of The American Geriatrics Society*, 60(8), 1509-1514. doi:10.1111/j.1532-5415.2012.04056.x
- Planning Around Alzheimer's.. (2009). *Journal of Financial Planning*, 22(9), 12.
- Shan, Y. (2013). Treatment of Alzheimer's disease. *Primary Health Care*, 23(6), 32-38.
- Shearer, J., Green, C., Ritchie, C. W., & Zajicek, J. P. (2012). Health state values for use in the economic evaluation of treatments for Alzheimer's disease. *Drugs & Aging*, 29(1), 31-43. doi:10.2165/11597380-000000000-00000
- Simmons, D. (2011). Sustainable living In long-term care: for people with Dementia/Alzheimer's. *Educational Gerontology*, 37(6), 526-547. doi:10.1080/03601277.2011.570208
- Tierney, R. (2013). Medicare. *Magill'S Medical Guide (Online Edition)*,
- "What is long-term care?." Long-Term Care Information. N.p., n.d. Web. 28 Mar. 2014. <<http://longtermcare.gov/the-basics/what-is-long-term-care/>>.
- Wierenga, C. E., & Bondi, M. W. (2011). Dementia and Alzheimer's Disease: what we know now. *Generations*, 35(2), 37-45.
- Yang, Z., Zhang, K., Lin, P., Clevenger, C., & Atherly, A. (2012). A longitudinal analysis of the lifetime cost of Dementia. *Health Services Research*, 47(4), 1660-1678. doi:10.1111/j.1475-6773.2011.01365.x

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